

## Bugs for Breakfast: Linking Salmon Habitat to Water Quality

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**Objective:** expand a popular and successful educational program called "Salmon in the Classroom" to include benthic macroinvertebrates (BMI's: Bugs for Breakfast) as indicators of water quality for salmon habitat.



*Students explore 'Bugs for Breakfast' at the Salmon Summit in May 2004*

**Background:** In the Salmon in the Classroom project, fourth and fifth grade students raise eggs (provided by the Yakama Indian Nation Fish Hatchery in Prosser) into juvenile salmon. This project ends with a field day to release the juveniles into the Yakima River at the Salmon Summit. The teachers use this program to integrate lessons in biology, life cycles, the water cycle, water chemistry and how protecting natural resources increases the chances of maintaining or expanding the fish population. Currently 20 schools and approximately 850 students in the Yakima & Columbia River Watersheds in Benton County, WA participate in this program.

### **Project expansion activities for Salmon in the Classroom:**

- 1) Include classroom and field activities on watershed health using benthic macroinvertebrates (BMI) as indicators of water quality
- 2) Develop 'BMI' aquatic insect reference collections for classrooms
- 2) Develop a 'carcass dissection' module for hands-on biology lesson and to illustrate the end of the 'life cycle' of salmon

Project collaborators will assist with field sampling for BMI's and in-class dissection modules

### **Impact:**

Students will be exposed to living organisms as indicators of watershed health and will learn the importance of clean water to provide habitat for salmon food webs. Examples from upper and lower watershed stream segments will illustrate human impacts on the environment.